Adapting to a Threat Mine Threat and Response in Afghanistan

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Change

"**The Cold War was a system built around weight. . . . The globalization system is built around speed. In the Cold War, the big ate the small. In Globalization, the fast eat the slow....**

--Thomas Friedman, Author of
The Lexus and the Olive Tree

Summary

How Do we Learn and Adapt to a Threat: Mine Warfare and Response in Afghanistan

- **The Physical and Cultural Environment**
- **The Pre-Existing Mine Threat**
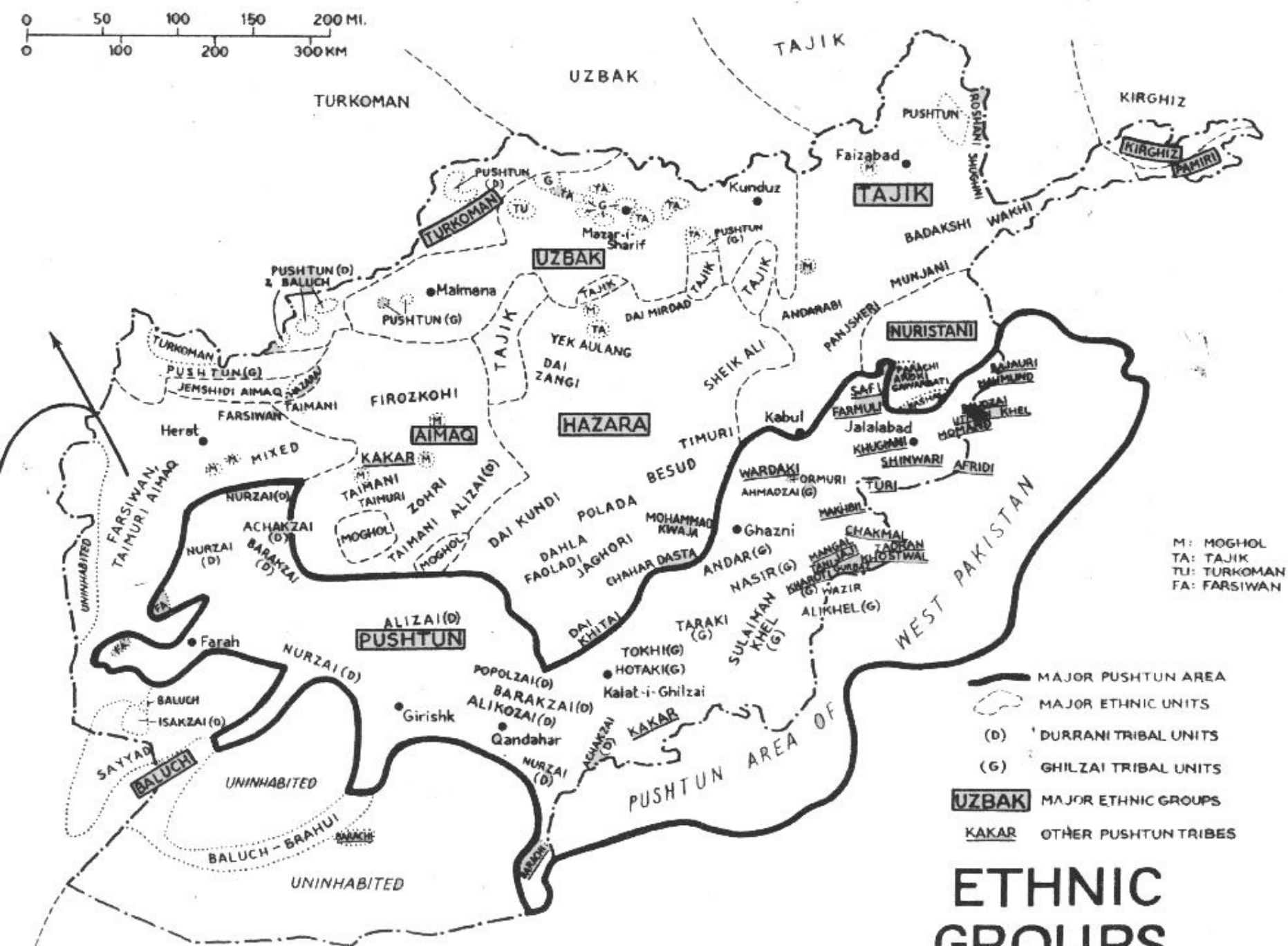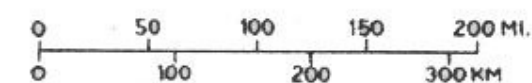- **The UN response**
- **The Future Mine Threat**

TURKMENISTAN

UZBEKISTAN

TAJIKISTAN

KYRGYZSTAN

CHINA

IRAN

PAKISTAN

INDIA

KAZ.

Andizhan

Navoi

Bukhara

Chardzhou

Samarkand

Karshi

Osh

Kashi

Mashhad

Mary

Kerki

Keleft

Dushanbe

Kulyab

Murgab

Khorog

Taxkorgan

Kurgan-Tyube

Nizhniy Pyandzh

Termez

Feyzābād

Eshkāshem

Lasht

Tayyebāt

Kushka

Towraghondi

Qal'eh-ye Now

Mazār-e Sharīf

Sheberghān

Jeyretān

Kholm

KONDOZ

Kondūz

Tāloqān

TAKHĀR

BADAKHSHAN

Gilgit

JOWZJĀN

BALKH

Sar-e Pol

Meymaneh

FARYĀB

SAR-E POL

Samangān

SAMANGAN

Baghlān

Pol-e Khomrī

BAGHLĀN

Chitrāl

KONAR

Herāt

BADGHĪS

Chaghcharān

BĀMIĀN

Bāmiān

Tūnel-e Sālang (Salang Tunnel)

Mahmūd-e Rāqī

KAPISA

Chārīkār

PARVAN

LAGHMAN

Mehtarlam

Asadābād

Cease-Fire Line

Srinagar

HERĀT

GHOWR

KĀBOL

Kowt-e Ashrōw

VARDAK

Kabul

Jalālābād

NANGARHAR

Landi Kotal

Islāmābād

Shindand

Barakī

LOWGAR

Khyber Pass

Pārachinār

Peshāwar

Kohāt

Rāwalpindi

INDIA

FARĀH

ORUZGĀN

Ghazni

GHAZNI

Gardeyz

PAKTIĀ

Khowst

Thal

Jammu

Farāh

Delārām

Tarīn Kowt

Zareh Sharan

PAKTĪKĀ

Bannu

Tānk

Sārgodha

Lahore

Jullundur

Lashkar Gāh

HELMAND

Qalāt

ZĀBOL

Zhob

NĪMRŪZ

Qandahār

KANDAHĀR

Chaman

Quetta

Khost

PAKISTAN

Zābol

Zaranj

Gowd-e Zereh (Intermittent lake)

Zāhedān

Nok Kundi

Dālbandin

Hāmūn-i-Mashkel

Sūrāb

Sukkur

IRAN

Afghanistan

International boundary
Province boundary
★ National capital
◉ Province capital
Railroad
Road

0   100   200 Kilometers
0   100   200 Miles

Lambert Conformal Conic Projection, SP 12N/38N

ETHNIC
GROUPS

MAJOR SOURCES
SOVETSKAYA ETNOGRAFIYA, #2, 1955;
ETNIČESKII SOSTAV STRAN PREDNEJ AZII 1957

HERAT AIRFIELD, AFGHANISTAN
PRE STRIKE

HERAT AIRFIELD, AFGHANISTAN
POST STRIKE

BEFORE

AFTER

Current Mine Threat

"*One of the Most Heavily Mined Countries in the World*"

- 22 years of constant war
- 760 km^2 of known contaminated land
- 120-200 km^2 of suspected contamination
- Ammunition cache's
- UXO; Battle Area contamination is 2-5x that of mined area contamination

Pre-existing Threat Also in Yemen, Chad, Somalia etc.

AFGHANISTAN

T A J I K I S T A N

CHINA

UZBEKISTAN

0   250.00 Km

1: 6000000

T U R K M E N I S T A N

BADAKHSHAN
1.62

KUNDUZ
21.71

TAKHAR
3.64

FARYAB
5.50

JOZJAN
0.00

BALKH
8.52

SAMANGAN
0.76

BAGHLAN
3.00

KUNAR
10.68

BADGHIS
17.56

BAMYAN
3.56

PARWAN
5.30

KAPISA
6.96

LAGHMAN
2.76

KABUL
78.78

NANGARHAR
29.20

HERAT
142.71

GHOR
1.85

WARDAK
14.28

LOGAR
25.43

PAKTIA
70.03

I R A N

UROZGAN
0.63

GHAZNI
28.51

PAKTIKA
19.75

FARAH
172.96

ZABUL
36.01

Total Mined Area in SqKm

P A K I S T A N

HELMAND
45.25

KANDAHAR
148.97

NIMROZ
12.85

TOTAL MINED AREA: 915.16 SqKm

S.No. 065

Legend

☐	No Mined Area is Reported
☐	Less than 1 SqKm
☐	1 to 10 SqKm
☐	10 to 25 SqKm
☐	25 to 50 SqKm
☐	More than 50 SqKm

59%

28%

1%

6%

1%
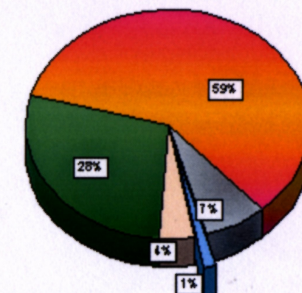
Agriculture: 257.9 SqKm   Residential: 40.2 SqKm
Irrigation: 11.2 SqKm   Road: 66.5 SqKm
Grazing: 543.2 SqKm

Current Mine Threat in Afghanistan

- Current minefields follow some military logic
  - Soviets to secure key installations, protect LOC's, area denial, close infil and exfil routes along borders.
  - Mujihadeen to ambush and interdict, protect CC
- Military terrain such as airfields remains mined
- Sophistication has increased in last 4 years
- Exact locations and formal marking are limited
- Community adaptation offers "clues" to mine locations

Present Mine Threat: "Mines-R-Us"

Bomb Yard, Kabul Airport--Dec 2001

Soviet Cluster Munitions and 23mm Incendiary Rounds within current US Perimeter-December 2001

Humanitarian Impacts Have Security Implications

- Food Security-farmland and irrigation systems--greater aid and more incentives for poppy production

- Local Economy-transportation blockages

- Livestock losses

- Population Displacement, Un and Under Employment, helps entrench power of Warlords

Soviet Mine Warfare

Soviet Mine Warfare Tactics

- Secure major installations, airfields, POL
  - fixed, mapped, part of barrier plan
- Secure dispersed "fire bases" along LOC
  - fixed, part of barrier plan
- Deny populations the use of the land
  - scattered or on irrigation systems
- Close border with Pakistan and Iran
- Dismounted special and airmobile ops

Mujihadeen Mine Warfare Tactics

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- Attack Lines of Communication
- Defend Strong Points and Supply Bases
- As part of Ambush or Series of   Ambushes
- Advance of Anticipated Soviet Action

Never Marked or Mapped

Soviet Counter-Mine Response

Soviet Counter-Mine Cont.

- **Doctrine**
- **MSD**
- **Op Sec**
- **Interdiction**
- **Deception**

Recent Developments

- Mines used by both Taliban and Northern Alliance
- New mines fields all along former front lines
- More Sophisticated Ambushes
- "Boosted" mines and Improvised Explosive Devices (IED)
- Al-Qauda and "Terrorist Inc." Expands Range of Detonators, Booby Traps

UN Mine Action Response

- UN Mine Action Programme For Afghanistan (MAPA) is largest and most successful demining operation in world

- 5,000 employees in 15 NGO's, $25m per year

- Sophisticated "toolbox" of resources
  - 80 Manual teams -18 Mine Dog Groups
  - 20 Mechanical tms   -EOD, BAC and Survey

- Strong indigenous capacity-very highly regarded

- Moderate use of data, mapping and decision support tools

Humanitarian Mine Action

- Survey and Clearance
- Victim's Assistance
- Mine Awareness Education
- Advocacy

- Information Management (?)

Clearing Farmland

Urban-- 3 Dimensional Problem

Military Preparation for Current Mine Threat

- Information sharing and coordination with MAPA, strong liaison function
- Develop "templating," and reconnaissance abilities
- Route Clearance in support of convoys
- Retrain individual soldier skills along lines of Civilian Mine Awareness
- Resolve doctrinal challenge of Ordnance Disposal vs. Minefield Breaching

The Future?

" ..The Conduct of War branches out in almost all directions and has no definite limits…"

Clausewitz, *On War*

Future Operational Environme

- Adaptive use of Urban and Complex Terrain
- Effectively use all varieties of Mines and Explos
- Decentralized, enemy operations
- Terrain will be Mined and Booby Trapped
- Attacks throughout Operational depth
- 360 degree battlefield

Dynamic Nature of Mine Warfare Environment

- **Unconventional tactics, coupled with offensive use**

- **Mines used to produce casualties, not to shape battlefield**

- **Changes in mine and booby trap technology outpace countermeasures**

- **Migration of mine & booby trap devices across and among international actors**

- **Mine employment, discipline, and techniques can vary between regional factions or state actors**

Future Mine Threat in Afghanistan

- Local threat can be expected
- Based on Mujihadeen Tactics vs. Soviets and Current Operations in Chechnya
- Used to Harass and Interdict LOC's
- As Part of "Series" Ambush
- More Sophisticated Methods of Detonation
- "Booby Traps"
- Large Improvised Explosive Device using UXO

Sources of Materials

Re-use mines
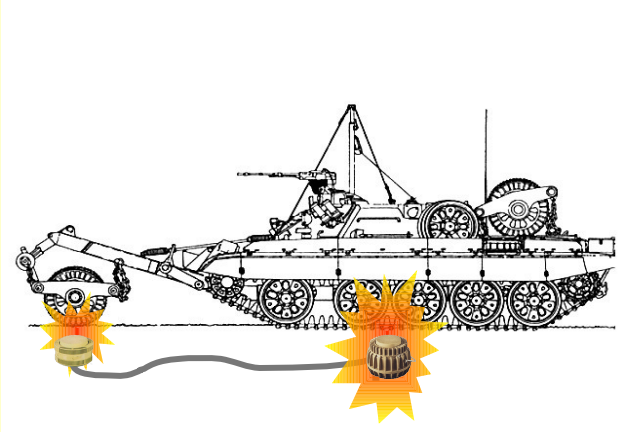

UXO & Captured Stockpiles
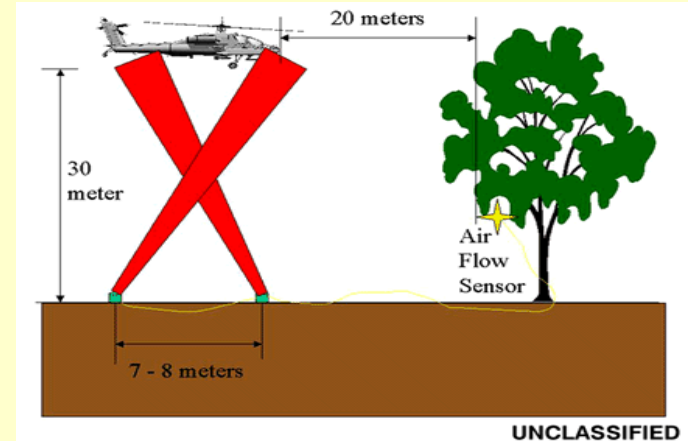

External Assistance

Off the Shelf

Tactics & Techniques

Attacks countermine equipment limitations

Innovative adaptation of components

Exploits Procedural Vulnerabilities

Mines used as a weapon - not as an obstacle

Response to Future Mine Threat

- **<u>PREPARE</u>**
  - **understanding the current threat--UN/NGO's**
  - **and future, evolving threat**
- **<u>PREVENT</u>** access to munitions
  - **Destroy Current Stores and Stocks**
  - **Leave Nothing on the Battlefield**
  - **Control Access to Ammo**
- **<u>PREEMPT</u>** through
  - **Intelligence, Surveillance & Reconnaissance**
  - **Active Patrolling**
  - **Raids**
  - **Attack the employer--not the mine**

Implications

- **It is not about now, or about the future, but about how we get there**

- **What are our systems for learning, evolving and implementing?**

- **There is no "end point" it is a race without and end**

When the Sun Comes up in the Jungle You had Better Be Running

The End

Questions?